

Unit 1: Organization

Histology Lab

Objective: You will be looking at different body tissues under the microscope and drawing and labeling them.

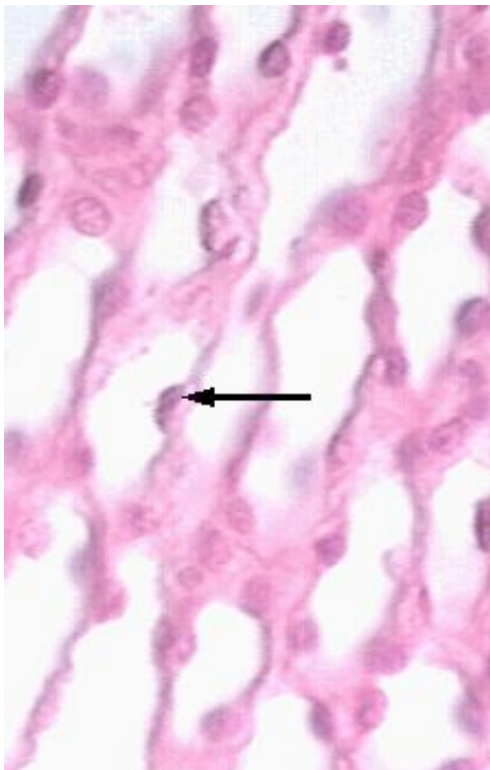
***Note: use the following outline as a guide:

1. Simple Squamous

F: diffusion/osmosis

L: alveoli (in lungs), blood vessels (especially capillaries), parts of kidneys

Label: nucleus

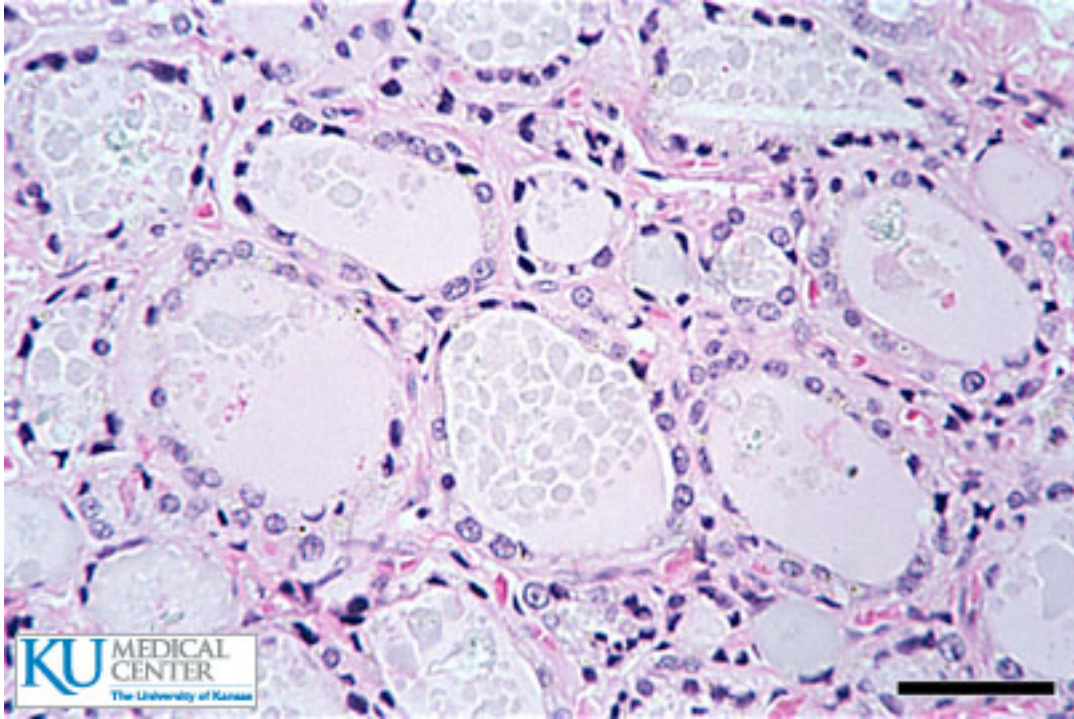


2. Simple Cuboidal

F: secretion, reabsorption

L: kidneys, thyroid gland, some other glands (salivary)

Label: nucleus



3. Simple Columnar

F: absorption

L: digestive tract

Label: cilia (if applicable)

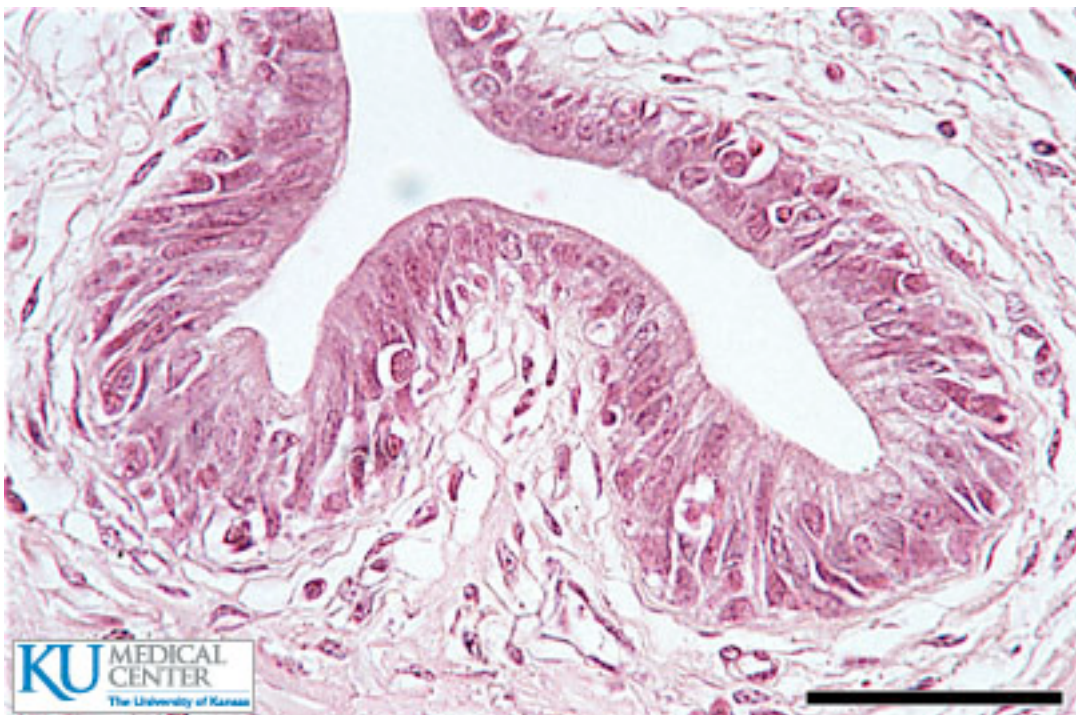


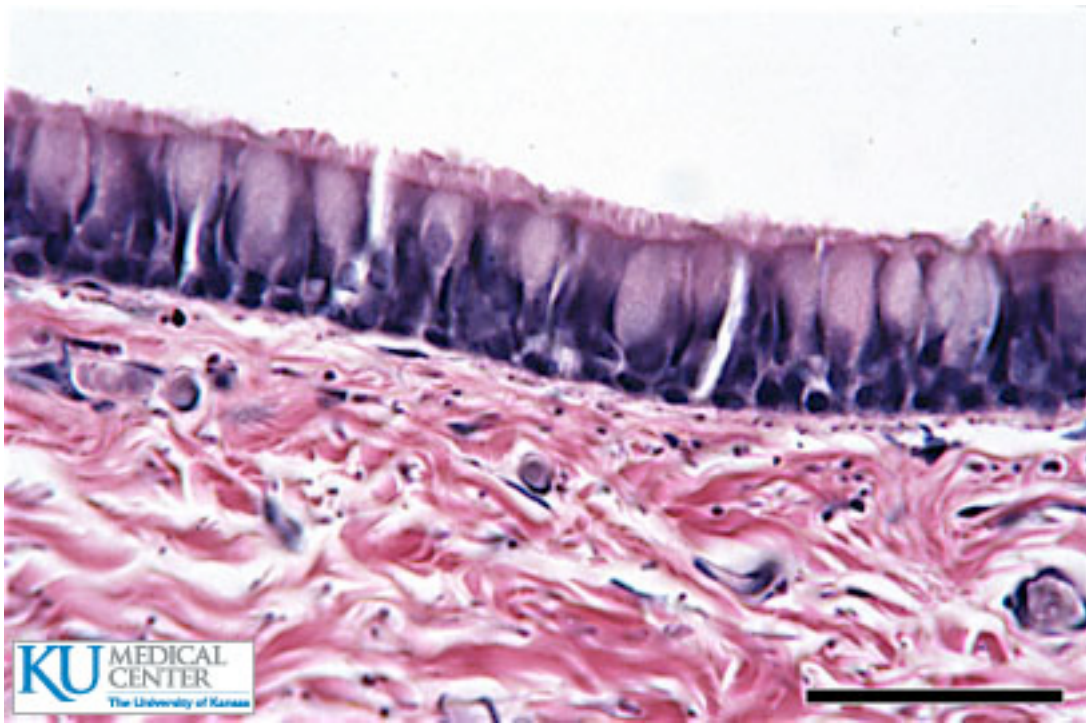
4. Pseudostratified Columnar

F: secretion, movement (from cilia)

L: trachea, certain glands

Label: cilia (if applicable)



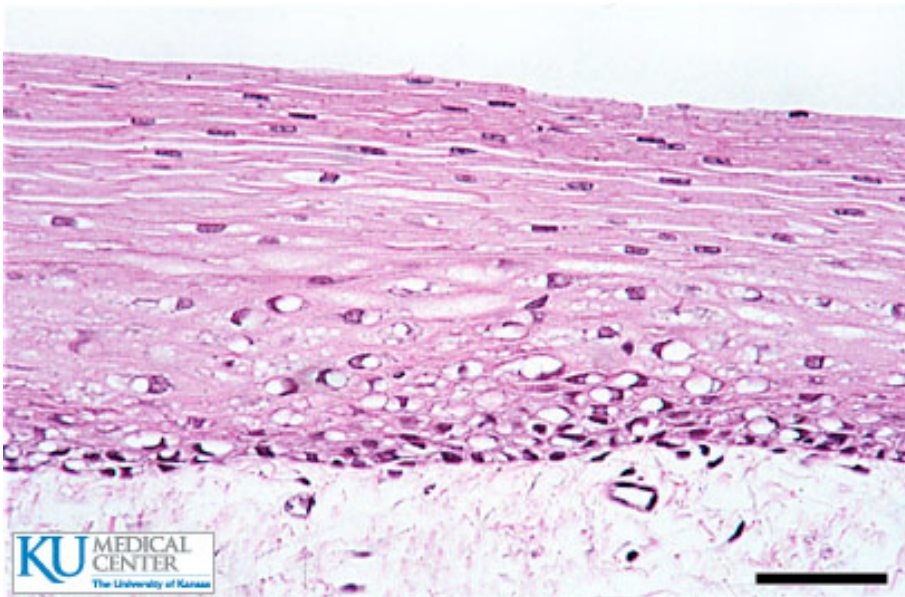


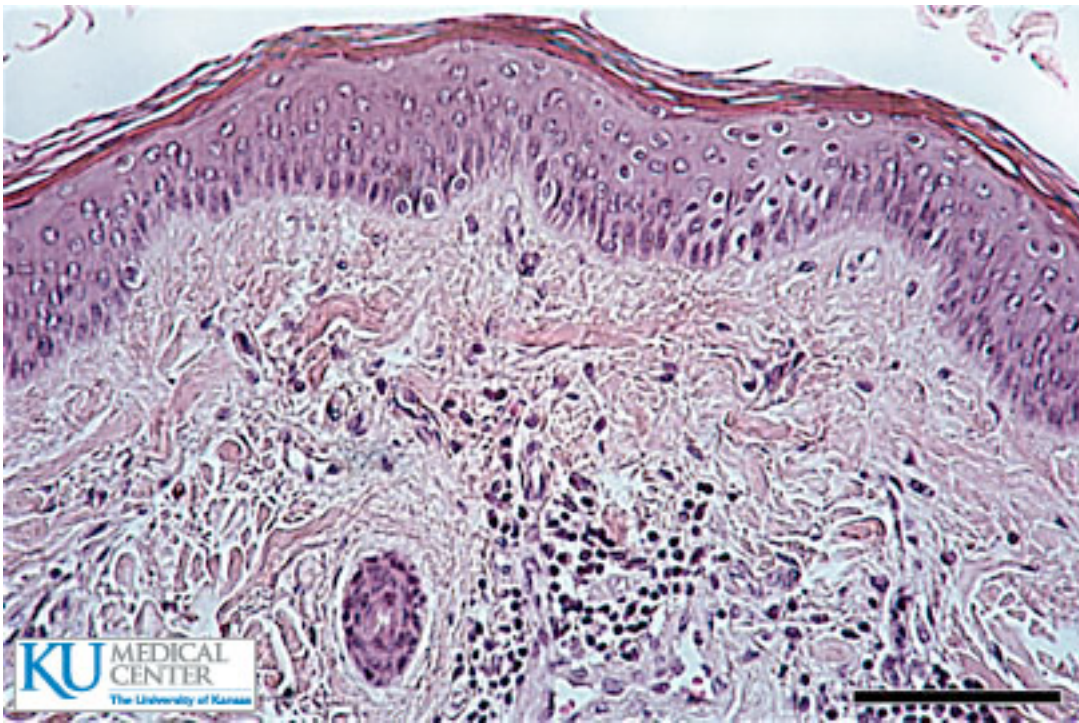
5. Stratified Squamous

F: protection

L: skin, nails (keratinized) mouth, esophagus, vagina (non-keratinized)

Label: keratin layer (if applicable)



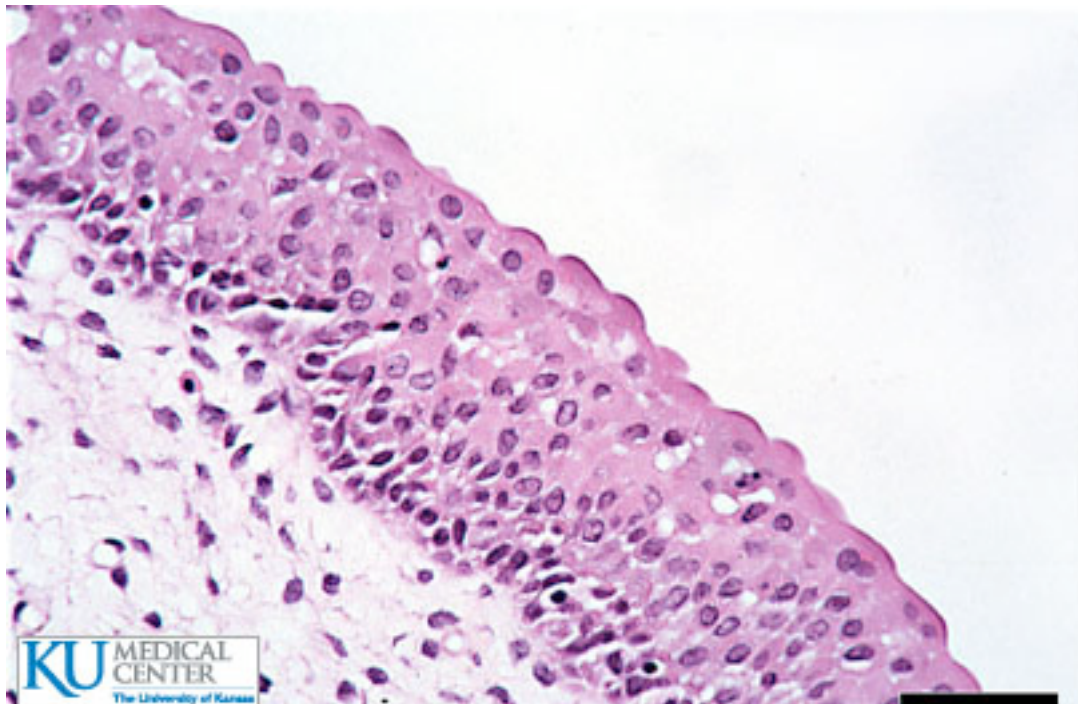


6. Transitional

F: flexibility (allows for stretching)

L: urinary tract (bladder, urethra, ureters)

Label: nucleus

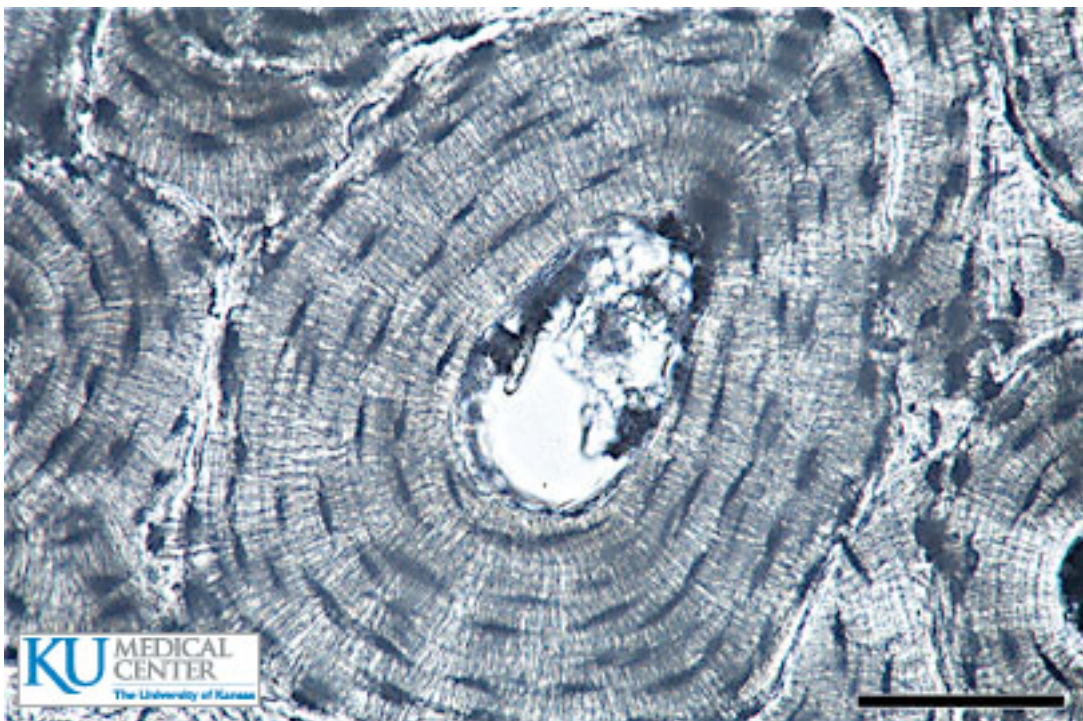
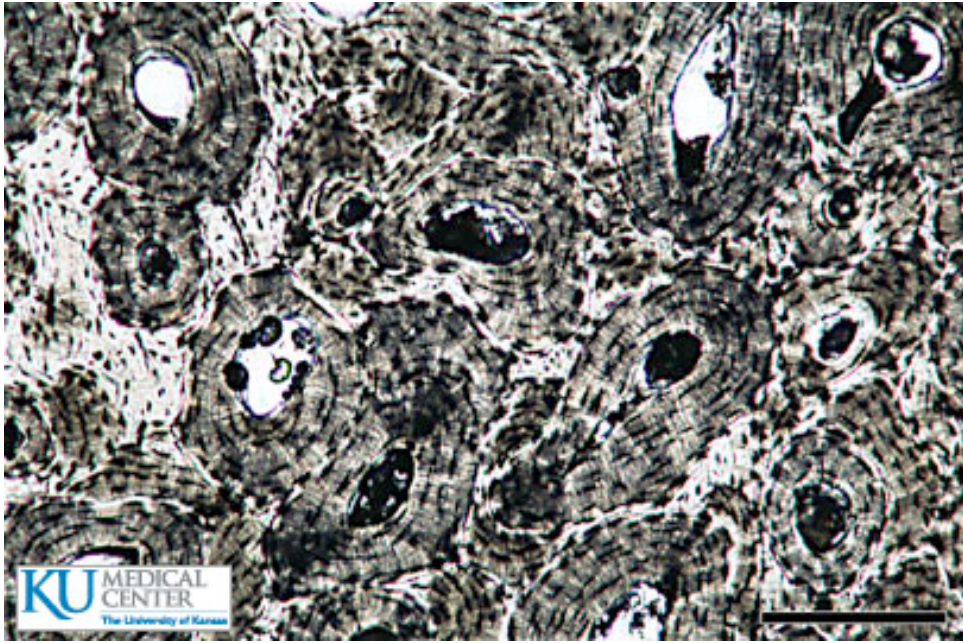


7. Bone

F: rigid support, protection

L: all bones

Label: Haversian Canal

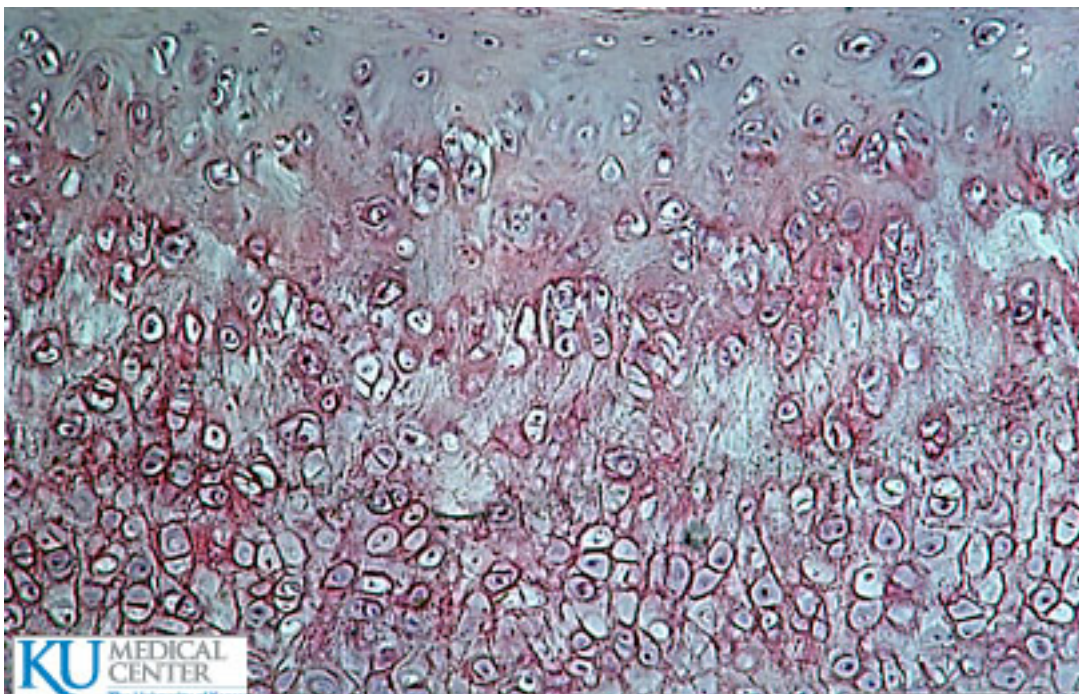
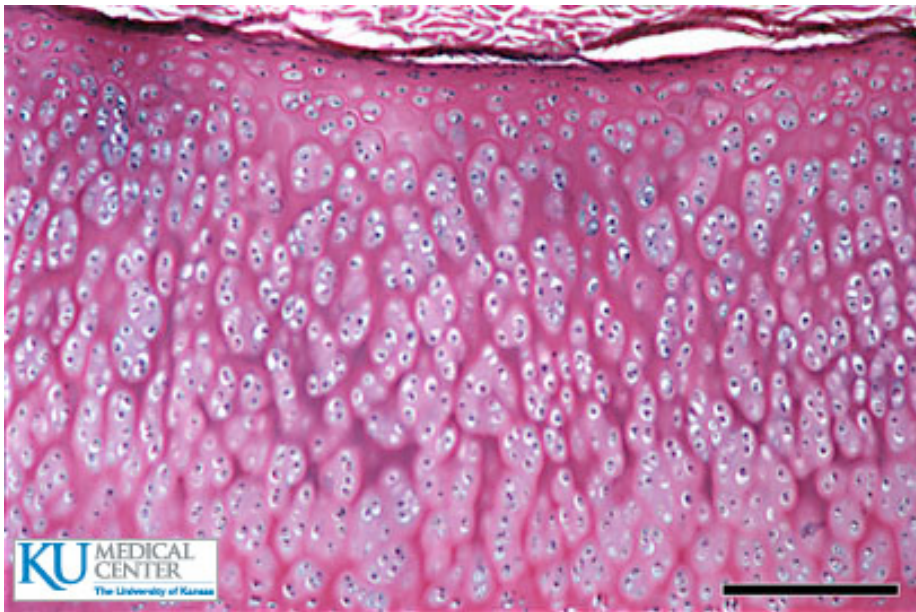


8. Cartilage

F: Support (more flexible than bone)

L: ends of long bones, ribs, nose, larynx, trachea, vertebral disks, knees, epiglottis

Label: none

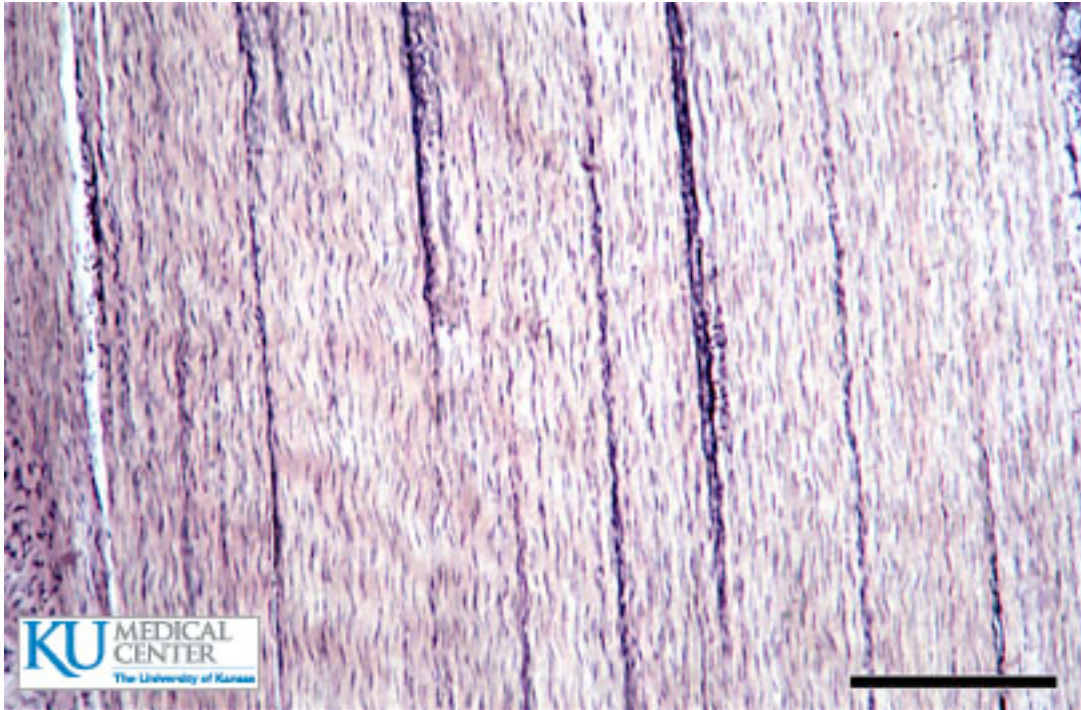


9. Dense Regular Connective

F: strength in one direction

L: tendons, ligaments

Label: none

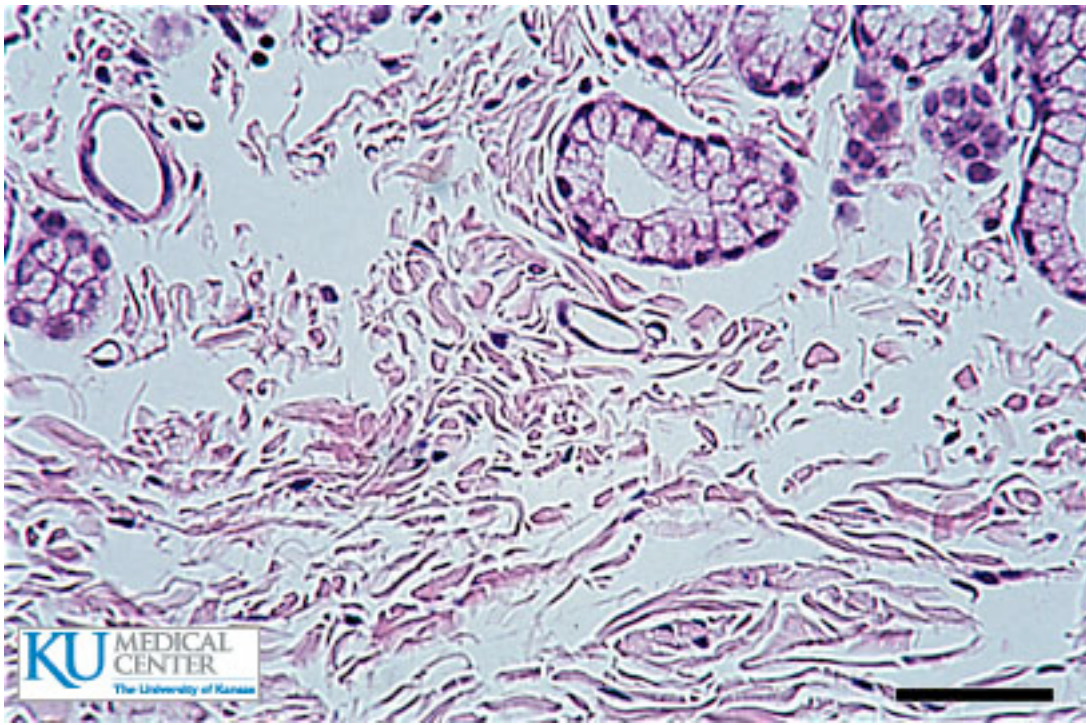


10. Loose Connective (sometimes called Areolar)

F: flexibility, support

L: bottom layer of skin, surrounds body organs

Label: none

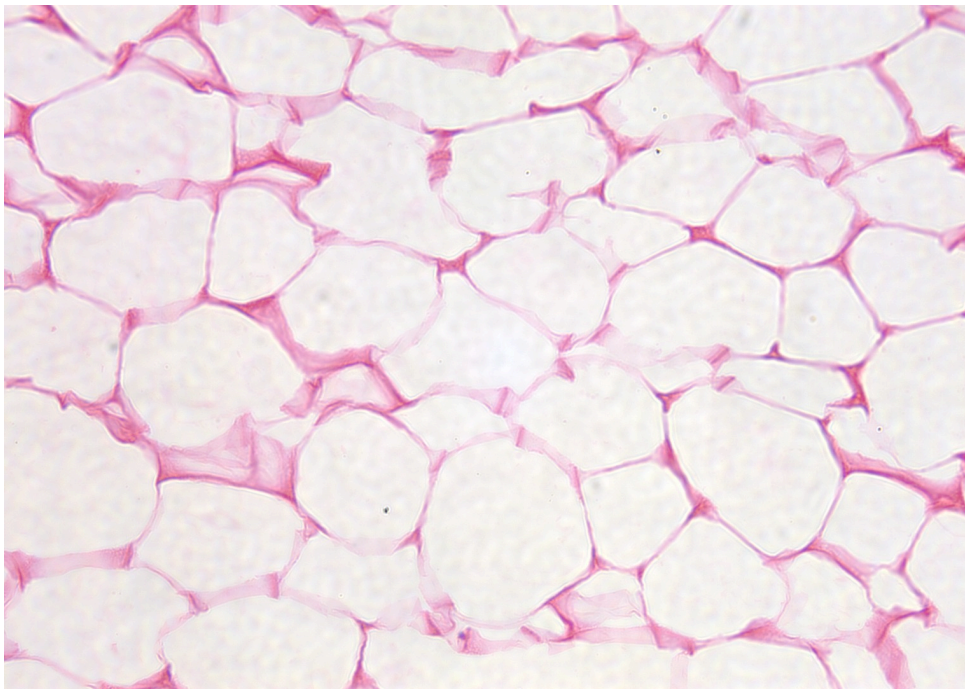


11. Adipose Tissue

F: insulation, energy storage, support, protection (cushioning)

L: bottom layer of skin, padding of joints

Label: none

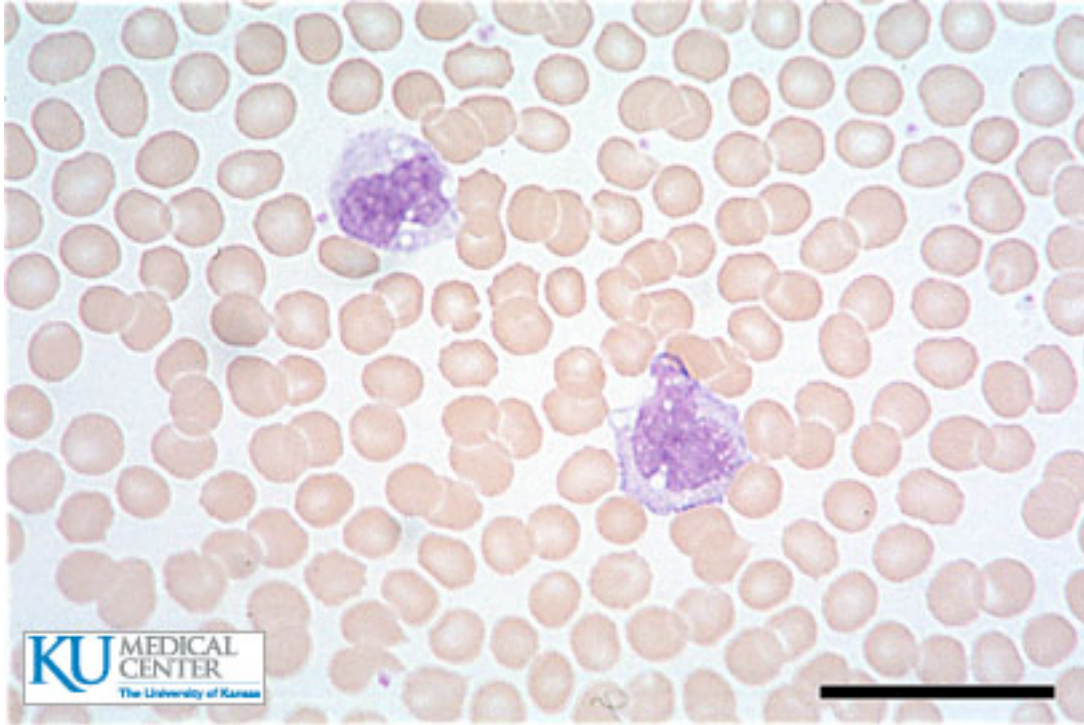


12. Blood

F: transport nutrients and oxygen, body defenses

L: blood vessels

Label: red blood cell, white blood cell

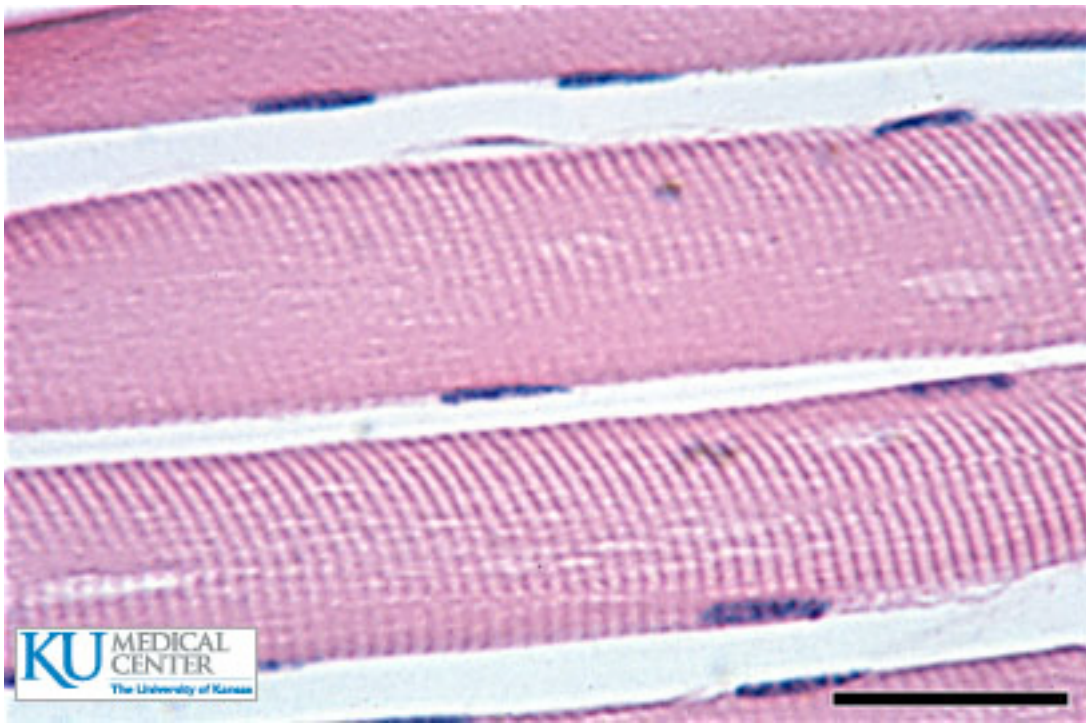


13. Skeletal Muscle

F: voluntary muscle contraction

L: many muscles that you have control of (biceps, hamstrings, calves, etc.)

Label: striations, nucleus

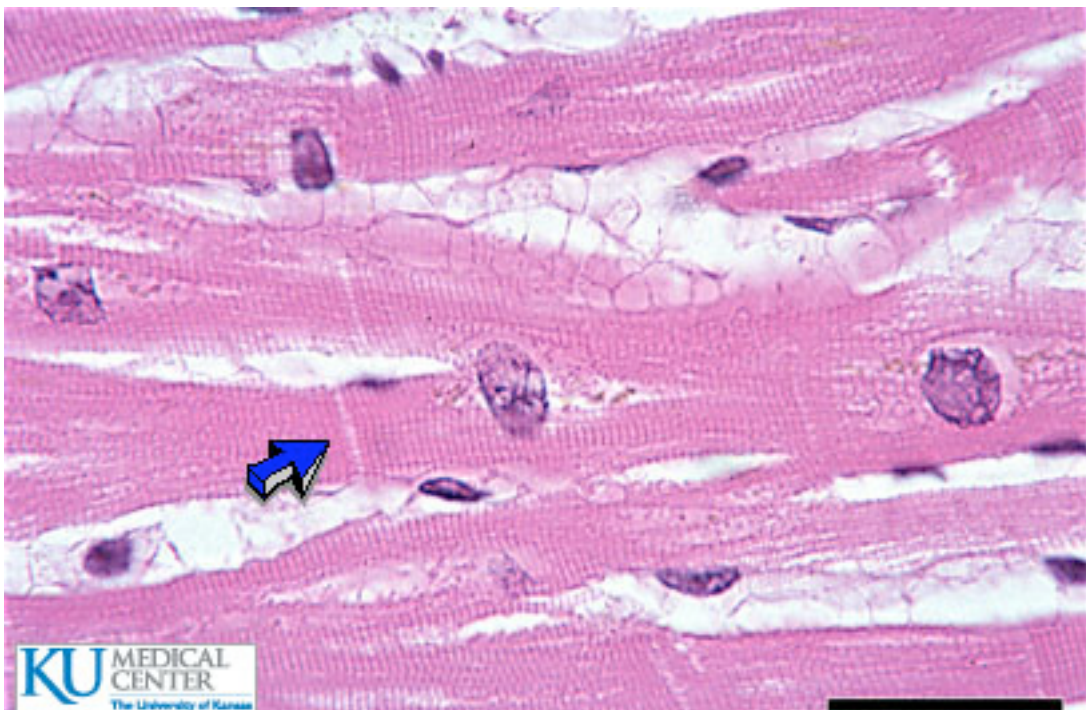


14. Cardiac Muscle

F: contraction of heart muscle (to pump blood)

L: heart

Label: intercalated discs, striations, nucleus

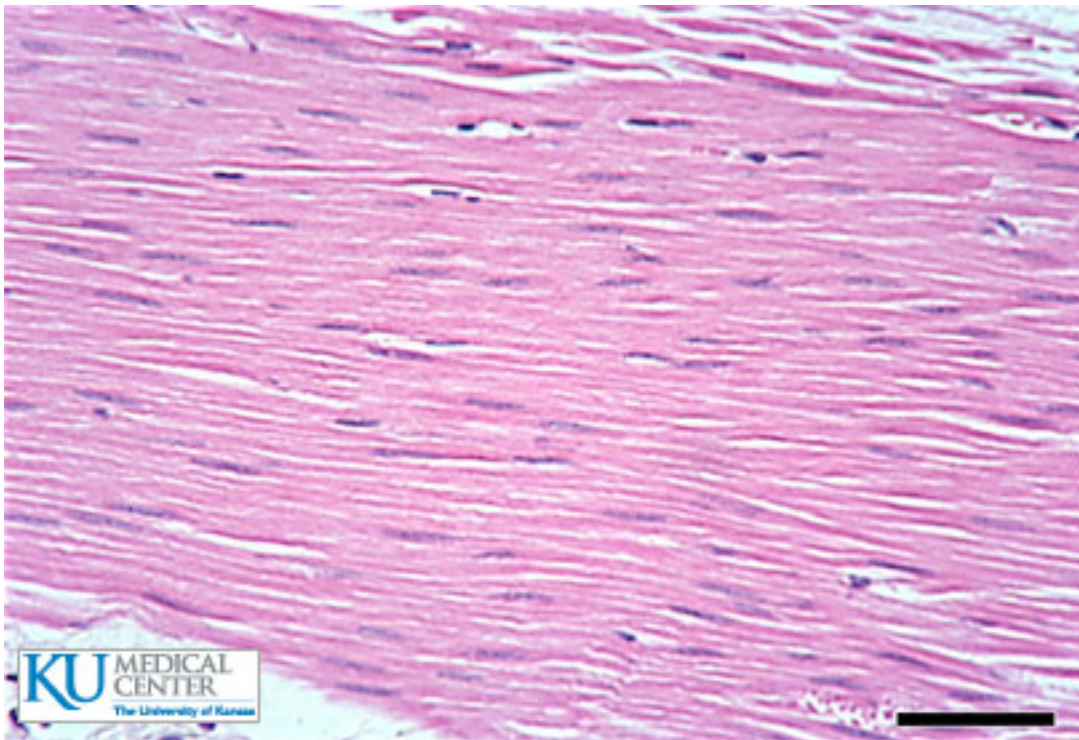


15. Smooth Muscle

F: involuntary muscle contraction

L: many muscles that you do not have control of (muscles in the digestive tract, muscles in blood vessels, etc.)

Label: nucleus



16. Nervous Tissue

F: receiving and sending messages (through electrical signals)

L: nerves all over the body (peripheral nerves), spinal cord, brain

Label: none

